KACHEMAK BAY RESEARCH RESERVE

WINTERING HABITAT FOR JUVENILE COHO

ISSUE:

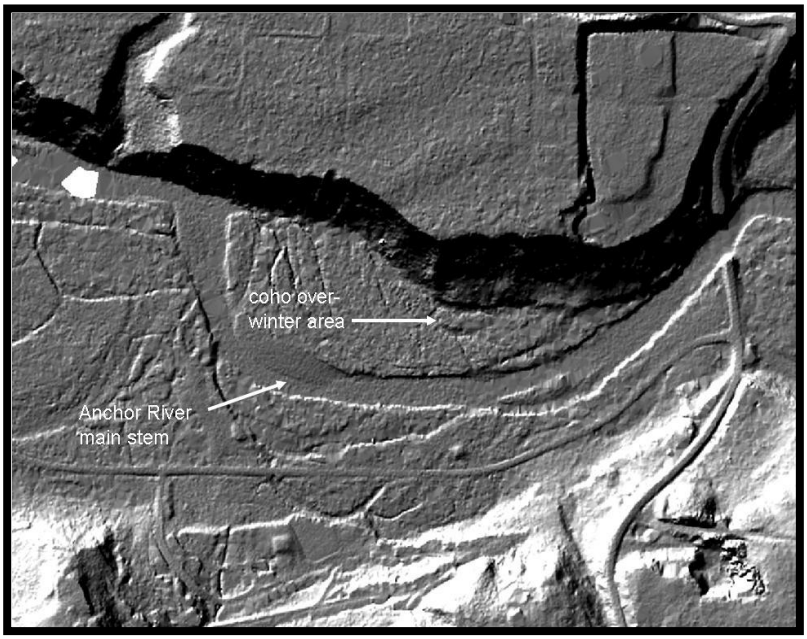
Freshwater wintering habitat for juvenile salmon is considered an important limiting factor to salmonid populations in Alaska, however, little is known about the ecology of wintering coho salmon populations here. Extensive sampling in the Anchor River and other Kenai Peninsula streams has indicated that, during winter periods, a substantial proportion of the wintering coho may be concentrated in a few discrete areas that are likely related to groundwater discharges, which may make this population especially vulnerable to habitat changes. Human population growth (20% in the Anchor River watershed over the last decade), coupled with ongoing climate change, is changing the quality and quantity of stream and groundwater flows that maintain juvenile salmon habitat. This study will provide information on densities and survival of juvenile salmon in different overwintering habitats on a watershed scale, providing managers and other decision-makers with essential information for protecting habitats critical to salmon.

OBJECTIVES:

1. Determine variability in over wintering habitat characteristics.
2. Determine the effects of over-wintering habitat on juvenile coho condition and survival.
3. Document winter habitat throughout the Anchor River watershed.

The research we will be conducting will provide new and necessary information on the relationship between wintering habitats and the density, survival, and fitness of juvenile coho for making informed decisions about conservation and restoration of critical coho habitat.

STATUS: IN PROGRESS



LiDAR image of the mouth of the Anchor River showing an example of localized over-wintering habitat. At this location hundreds of juvenile salmonids were captured in mid-May, before they had moved out of winter habitat, and again in late October, as they had moved back into winter habitat.

PARTNERS

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